



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,745	08/10/2001	Haruhisa Kato	35. C15694	6653

5514 7590 09/29/2005

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

PEREZ GUTIERREZ, RAFAEL

ART UNIT PAPER NUMBER

2686

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,745

Applicant(s)

Kato

Examiner

Rafael Perez-Gutierrez

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-30 is/are pending in the application.
- 4a) Of the above claim(s) 29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2686

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 29, 2005 has been entered. **Claims 18-30** are still pending in the present application.

Election/Restriction

2. Applicant's election of **claims 18-28** in the reply filed on April 29, 2005 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Art Unit: 2686

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference number not mentioned in the description: On **figure 3C**, reference number **23c** is not mentioned in the description.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office Action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended”. If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office Action. If a response to the present Office Action fails to include proper drawing corrections, corrected drawings or arguments therefor, the response can be held **NON-RESPONSIVE** and/or the application could be **ABANDONED** since the objections/corrections to the drawings are no longer held in abeyance.

Art Unit: 2686

Specification

6. The disclosure is objected to because of the following informalities:
- a) On **page 5 line 9**, replace “wire” with “--wireless--” after “to the”; and
 - b) On **page 5 line 26**, delete “no” after “output”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless -- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 23-28 are rejected under 35 U.S.C. 102(e) as being anticipated by **Park (U.S. Patent # 6,374,127 B1)**.

Regarding **claim 23**, Park discloses a wireless communication apparatus comprising: wireless communication means for transmitting and receiving signals wirelessly (communication means such as a receiver, a transmitter, a baseband signal processor; *Fig. 2; Fig. 5*); a plurality of power supply means for supplying a power to said wireless communication means (A battery, voltage controllers, voltage regulators, DC/DC converters, *col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1 and 2*), wherein each of said plurality of power supply means has a different current

Art Unit: 2686

supply capacity (e.g., each regulator outputting different supply voltages (3.3 V, 3.6 V) hence they have different current supply capacity) (figure 2); and switching means for switching at least one of said plurality of power supply means in accordance with a signal received by said wireless communication means (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX_AGC, TX_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission and reception modes; *col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15*).

Regarding **claim 24**, and as applied to claim 23, Park disclose the aforementioned apparatus, wherein said switching means switches said at least one of said plurality of power supply means in accordance with reception of the signal for permitting transmission from said wireless communication means (Applying the appropriate voltage for transmission mode in accordance with a signal TX_MODE; *col. 4, lines 44-58*).

Regarding **claim 25**, and as applied to claim 23, Park disclose the aforementioned apparatus, wherein said switching means switches said at least one of said plurality of power supply means in accordance with the signal received by said wireless communication means and existence of transmission data to be transmitted by said wireless communication means (Wherein a TX_AGC voltage is used to detect a change in transmission power, which increases in proportion with the transmission power in transmission mode, thereby associating an increase in transmission power with the data transmission; *col. 5, lines 1-15; col. 6, lines 1-15*).

Regarding **claim 26**, Park disclose a method of supplying power to a wireless

Art Unit: 2686

communication device which receives and transmits signals (communication means such as a receiver, a transmitter, a baseband signal processor; *Fig. 2; Fig. 5*), comprising the steps of: providing power from a plurality of power supplies (A plurality of power supplies such as battery, voltage controllers, voltage regulators, DC/DC converters, and switching means for switching said plurality of power supplies, such as transistors (Q, SW) and signal responses (TX_AGC, TX_MODE), *col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1-3*), wherein each of said plurality of power supplies has a different current supply capacity (e.g., each regulator outputting different supply voltages (3.3 V, 3.6 V) hence they have different current supply capacity) (*figure 2*); receiving a signal from the wireless communication device (Applying the appropriate voltage for transmission mode in accordance with a signal TX_MODE; *col. 4, lines 44-58*); and switching power from at least one of the plurality of power supplies in accordance with the signal received in said receiving step (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX_AGC, TX_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission and reception modes; *col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15*).

Regarding **claim 27**, and as applied to claim 26, Park disclose the aforementioned method, wherein said switching step switches said at least one of the plurality of power supplies in accordance with reception of the signal for permitting transmission (Applying the appropriate voltage for transmission mode in accordance with a signal TX_MODE; *col. 4, lines 44-58*).

Regarding **claim 28**, and as applied to claim 26, Park disclose the aforementioned

Art Unit: 2686

method, wherein said switching step switches said at least one of the plurality of power supplies in accordance with the signal received in said receiving step and existence of transmission data to be transmitted (Wherein a TX_AGC voltage is used to detect a change in transmission power, which increases in proportion with the transmission power in transmission mode, thereby associating an increase in transmission power with the data transmission; *col. 5, lines 1-15; col. 6, lines 1-15*).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 18-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Park (U.S.**

Art Unit: 2686

Patent # 6,374,127 B1 in view of **Tsukuda (U.S. Patent # 6,223,025)**.

Regarding **claim 18**, Park discloses a wireless communication apparatus (*col. 1, lines 15-20; col. 3, lines 7-9; Figs. 1, 2 and 5*) comprising: wireless communication means (communication means such as a receiver, a transmitter, a baseband signal processor; *Fig. 2; Fig. 5*); first and second power supply means for supplying a power to said wireless communication means (A battery, voltage controllers, voltage regulators, DC/DC converters, *col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1 and 2*); and switching means for turning on said first power supply means (e.g., regulator 76) (figure 2) in accordance with a first state of said wireless communication means (i.e., transmission mode) (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX_AGC, TX_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission or reception modes; *col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15*), and for turning off said first power supply means (e.g., regulator 76) and turning on said second power supply means (DC/DC converter 20 and regulators 72, 74) (figure 2) in accordance with a second state of said wireless communication means (i.e., reception mode) (*col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15*), wherein power from the first or second power supply means turn on by said switching means is supplied to said wireless communication means (wherein an corresponding output voltage is supplied to the mobile communication terminal in both reception and transmission modes, thereby supplying voltage to the transmitter and the receiver; *col. 2, lines 24-42; col. 4, lines 22-27*).

Art Unit: 2686

However, Park does not specifically disclose turning off said second power supply means in accordance with a first state of said wireless communication means.

In the same field of endeavor, Tsukuda clearly disclose a wireless communication in which a second power supply means (i.e., DC/DC converter 3) (figures 6 and 7) is turned off in accordance with a first state (i.e., radio section 1 is ON) of a radio selective calling receiver (figures 6 and 7 and column 5 line 6 - column 6 line 19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to turn off the second power supply in accordance with a first state of the wireless communication means as taught by Tsukuda in the apparatus disclosed by Park for the purpose of efficient performance.

Regarding **claim 19**, and as applied to claim 18, Park, as modified by Tsukuda, discloses the aforementioned apparatus, wherein said first and second power supply means supply the power originated from a common power source (Wherein power supply elements such as DC/DC converters and voltage regulators are coupled to a common power source such as battery; *Figs. 1 and 2, item 10*).

Regarding **claim 20**, and as applied to claim 18, Park, as modified by Tsukuda, discloses the aforementioned, wherein said first power supply means comprises a series regulator 76 (Figure 2) and said second power supply means comprises a DC/DC converter (*Fig. 1, items 18 and 22; Fig. 2, item 20*).

Regarding **claim 21**, Park discloses a method of supplying a power for wireless communications (A plurality of power supplies such as battery, voltage controllers, voltage

Art Unit: 2686

regulators, DC/DC converters, and switching means for switching said plurality of power supplies, such as transistors (Q, SW) and signal responses (TX_AGC, TX_MODE), *col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1-3*), comprising the steps of: detecting a first or second state of the wireless communication (Detecting a transmission and a reception mode according to an active or inactive response from a signal TX_MODE; *col. 4, lines 34-58*); turning on a first power supply circuit (e.g., regulator 76) (figure 2) in accordance with the first state of the wireless communication (i.e., transmission mode) (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX_AGC, TX_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission and reception modes; *col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15*); turning off the first power supply circuit (regulator 76) and turning on the second power supply circuit (DC/DC converter 20) in accordance with detecting the second state of the wireless communication (*col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15*); and supplying power for the wireless communication from the first or second power supply circuit turn on in accordance with detecting the first or second state of the wireless communication (wherein an corresponding output voltage is supplied to the mobile communication terminal in a reception or a transmission modes, thereby supplying voltage to the transmitter or the receiver; *col. 2, lines 24-42; col. 4, lines 22-27*).

However, Park does not specifically disclose turning off said second power supply circuit in accordance with a first state of said wireless communication means.

Art Unit: 2686

In the same field of endeavor, Tsukuda clearly disclose a wireless communication in which a second power supply means (i.e., DC/DC converter 3) (figures 6 and 7) is turned off in accordance with a first state (i.e., radio section 1 is ON) of a radio selective calling receiver (figures 6 and 7 and column 5 line 6 - column 6 line 19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to turn off the second power supply in accordance with a first state of the wireless communication means as taught by Tsukuda in the apparatus disclosed by Park for the purpose of efficient performance.

Regarding **claim 22**, and as applied to claim 21, Park, as modified by Tsukuda, discloses the aforementioned method, wherein the first and second power supply circuits for supplying the power originated from a common power source for the wireless communications (Wherein power supply elements such as DC/DC converters and voltage regulators are coupled to a common power source such as battery; *Figs. 1 and 2, item 10*).

Response to Arguments

10. Applicant's arguments with respect to **claims 18 and 21** have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments filed on April 29, 2005 have been considered but are moot in view of the new ground(s) of rejection necessitated by the new limitations added to **claims 23 and 26**.

Art Unit: 2686

See the above rejection of claims 23 and 26 for the relevant citations found in Park disclosing the newly added limitations.

Conclusion

12. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (571) 272-7915. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.


If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2686

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.



Rafael Perez-Gutierrez

R.P.G./rpg

RAFAEL PEREZ-GUTIERREZ
PRIMARY EXAMINER

September 26, 2005